

1573381

SEQUENCE LISTING

664746seq

IAP20 Res'd REPTO 24 MAR 2006

<110> TAKARA BIO INC.

<120> Polypeptide having RNaseIII activity

<130> 664746

<150> JP 2003-342260

<151> 2003-09-30

<150> JP 2003-409638

<151> 2003-12-08

<160> 17

<170> PatentIn version 3.1

<210> 1

<211> 678

<212> DNA

<213> Shewanella sp. AC10

<400> 1

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attgaattac ttattcaggc cttaacacat ogtagcgcag caaataaaca taatgagcgt    120
ttagagtttt taggtgattc gattttatcg atagccattt cagatgcctt atatcatcag    180
tttccaaagg cgactgaagg tgatttaagc cgaatgcgcg ccactttagt caaagggtgac    240
acgctgacaa tcatagctaa agagttcaag ctaggtgatt atttgtattt aggtcctggt    300
gaactcaaaa gtggtggcgt tagacgcgaa tctatttttag ctgatgctgt agaggctatt    360
attggtgctg tctatcttga tgotgatatt gaagtgtgcc gcaagctatt attatcatgg    420
tatcaagagc gtttagctga gattaaaccg ggtattaatc aaaaagatcc gaagacaata    480
ttgcaagaat acctgcaagg ttttaaaaag ccattgcctg attaccaagt tgttgcagta    540
gaagggtgaag cccatgatca aacottcacc gtagaatgta aaattagtga attagataaa    600
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<210> 2

<211> 39

<212> DNA

<213> Artificial

<220>

<223> Synthetic primer 1 to amplify a gene encoding Shewanella sp. AC10 RNaseIII

<400> 2

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<210> 3

<211> 37

<212> DNA

<213> Artificial

<220>

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<400> 3
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<210> 4
<211> 226
<212> PRT
<213> Shewanella sp. Ac10

<400> 4

Met Glu Pro Ile Lys Asn Leu Pro Arg Leu Cys Arg Thr Leu Gly Tyr
1 5 10 15

Glu Phe Asn Asn Ile Glu Leu Leu Ile Gln Ala Leu Thr His Arg Ser
20 25 30

Ala Ala Asn Lys His Asn Glu Arg Leu Glu Phe Leu Gly Asp Ser Ile
35 40 45

Leu Ser Ile Ala Ile Ser Asp Ala Leu Tyr His Gln Phe Pro Lys Ala
50 55 60

Thr Glu Gly Asp Leu Ser Arg Met Arg Ala Thr Leu Val Lys Gly Asp
65 70 75 80

Thr Leu Thr Ile Ile Ala Lys Glu Phe Lys Leu Gly Asp Tyr Leu Tyr
85 90 95

Leu Gly Pro Gly Glu Leu Lys Ser Gly Gly Phe Arg Arg Glu Ser Ile
100 105 110

Leu Ala Asp Ala Val Glu Ala Ile Ile Gly Ala Val Tyr Leu Asp Ala
115 120 125

Asp Ile Glu Val Cys Arg Lys Leu Leu Leu Ser Trp Tyr Gln Glu Arg
130 135 140

Leu Ala Glu Ile Lys Pro Gly Ile Asn Gln Lys Asp Pro Lys Thr Ile
145 150 155 160

Leu Gln Glu Tyr Leu Gln Gly Phe Lys Lys Pro Leu Pro Asp Tyr Gln
165 170 175

Val Val Ala Val Glu Gly Glu Ala His Asp Gln Thr Phe Thr Val Glu
180 185 190

Cys Lys Ile Ser Glu Leu Asp Lys Val Val Thr Gly Val Ala Ser Ser
195 200 205

Arg Arg Lys Ala Glu Gln Leu Ala Ala Ala Gln Val Leu Glu Leu Leu
210 215 220

Asn Lys
225

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<210> 5
 <211> 243
 <212> PRT
 <213> Artificial

<220>
 <223> An expression peptide sequence of Shewanella sp. AC10 RNaseIII

<400> 5

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 1 5 10 15

Ser Met Glu Pro Ile Lys Asn Leu Pro Arg Leu Cys Arg Thr Leu Gly
 20 25 30

Tyr Glu Phe Asn Asn Ile Glu Leu Leu Ile Gln Ala Leu Thr His Arg
 35 40 45

Ser Ala Ala Asn Lys His Asn Glu Arg Leu Glu Phe Leu Gly Asp Ser
 50 55 60

Ile Leu Ser Ile Ala Ile Ser Asp Ala Leu Tyr His Gln Phe Pro Lys
 65 70 75 80

Ala Thr Glu Gly Asp Leu Ser Arg Met Arg Ala Thr Leu Val Lys Gly
 85 90 95

Asp Thr Leu Thr Ile Ile Ala Lys Glu Phe Lys Leu Gly Asp Tyr Leu
 100 105 110

Tyr Leu Gly Pro Gly Glu Leu Lys Ser Gly Gly Phe Arg Arg Glu Ser
 115 120 125

Ile Leu Ala Asp Ala Val Glu Ala Ile Ile Gly Ala Val Tyr Leu Asp
 130 135 140

Ala Asp Ile Glu Val Cys Arg Lys Leu Leu Leu Ser Trp Tyr Gln Glu
 145 150 155 160

Arg Leu Ala Glu Ile Lys Pro Gly Ile Asn Gln Lys Asp Pro Lys Thr
 165 170 175

Ile Leu Gln Glu Tyr Leu Gln Gly Phe Lys Lys Pro Leu Pro Asp Tyr
 180 185 190

Gln Val Val Ala Val Glu Gly Glu Ala His Asp Gln Thr Phe Thr Val
 195 200 205

Glu Cys Lys Ile Ser Glu Leu Asp Lys Val Val Thr Gly Val Ala Ser
 210 215 220

Ser Arg Arg Lys Ala Glu Gln Leu Ala Ala Ala Gln Val Leu Glu Leu
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225 230 235 240

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Leu Asn Lys

<210> 6
<211> 720
<212> DNA
<213> Artificial

<220>
<223> red-shifted green fluorescence protein

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ggaaaactta cctgaagtt catctgcact actggcaaac tgcctgttcc atggccaaca 180
ctagtcaact ctctgtgcta tgggtgttcaa tgcttttcaa gatacccgga tcatatgaaa 240
cggcatgact ttttcaagag tgccatgccc gaaggttatg tacaggaaag gaccatcttc 300
ttcaaagatg acggcaacta caagacacgt gctgaagtca agtttgaagg tgataccctt 360
gttaatagaa tcgagttaaa aggtattgac ttcaaggaag atggaaacat tctgggacac 420
aaattggaat acaactataa ctacacacat gtatacatca tggcagacaa acaaaagaat 480
ggaatcaaag tgaacttcaa gacccgccac aacattgaag atggaagcgt tcaactagca 540
gaccattatc acaaaaatac tccaattggc gatggccctg tccttttacc agacaaccat 600
tacctgtcca cacaatctgc cttttcgaaa gatcccaacg aaaagagaga ccacatggtc 660
cttcttgagt ttgtaacagc tgctgggatt acacatggca tggatgaact gtacaactga 720

<210> 7
<211> 42
<212> DNA
<213> Artificial

<220>
<223> Synthetic primer dsr-1 to amplify a gene encoding red-shifted green fluorescence protein

<400> 7
gggtaatacg actcactata gggagaatgg ctagcaaagg ag 42

<210> 8
<211> 42
<212> DNA
<213> Artificial

<220>
<223> Synthetic primer dsr-2 to amplify a gene encoding red-shifted green fluorescence protein

<400> 8
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<210> 9
<211> 42
<212> DNA
<213> Artificial

664746seq

<220>

<223> Synthetic primer dsl-1 to amplify a gene encoding luciferase

<400> 9

gggtaatacg actcactata gggagaatgg aagacgcaa aa

42

<210> 10

<211> 42

<212> DNA

<213> Artificial

<220>

<223> Synthetic primer dsl-2 to amplify a gene encoding luciferase

<400> 10

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42

<210> 11

<211> 42

<212> DNA

<213> Artificial

<220>

<223> Synthetic primer dsl-3 to amplify a gene encoding luciferase

<400> 11

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42

<210> 12

<211> 66

<212> PRT

<213> Thermotoga maritima

<400> 12

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1 5 10 15

Ile Thr Lys Asp Glu Gly Gly Asp Val Phe Val His Trp Ser Ala Ile
20 25 30

Glu Met Glu Gly Phe Lys Thr Leu Lys Glu Gly Gln Val Val Glu Phe
35 40 45

Glu Ile Gln Glu Gly Lys Lys Gly Pro Gln Ala Ala His Val Lys Val
50 55 60

Val Glu
65

<210> 13

<211> 198

<212> DNA

<213> Thermotoga maritima

<400> 13

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60

gaaggaggag acgtgttcgt acactgggtca gccatcgaaa tggaaggttt caaaactotg

120

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aaggaaggcc aggtcgtcga gttcgagatt caggaaggca agaaaggtcc acaggcagcg 180

cacgtgaaag tagttgag 198

<210> 14
 <211> 20
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic primer rsGFP-F to amplify a gene encoding rsGFP

<400> 14
 gccacaacat tgaagatgga 20

<210> 15
 <211> 20
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic primer rsGFP-R to amplify a gene encoding rsGFP

<400> 15
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<210> 16
 <211> 20
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic primer Neo-F to amplify a gene encoding Neo

<400> 16
 atagcgttgg ctaccogtga 20

<210> 17
 <211> 20
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic primer Neo-R to amplify a gene encoding Neo

<400> 17
 gaaggcgata gaaggcgatg 20